



Docket No. 2955-4004US3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Gero MIESENBOCK

Group Art Unit: 2645

Serial No.: 10/676,428

Examiner: TBA

Filed: September 30, 2003

For: HYBRID MOLECULES AND THEIR USE FOR OPTICALLY DETECTING
CHANGE IN CELLULAR MICROENVIRONMENTS

PETITION TO ACCEPT COLOR DRAWINGS UNDER
37 C.F.R. §1.84(a)(2) AND COLOR PHOTOGRAPHS UNDER
37 C.F.R. §1.84(b)(2)

Petition is hereby made to accept a color drawing for Figure 3 and color photographs for Figures 2, 4 and 14-17 in the above-identified application. These drawings and photographs are submitted in triplicate herewith as required under 37 C.F.R. §1.84(a)(2)(ii). Applicants also note that the language required by 37 C.F.R. §1.84(a)(2)(iv) is already in the as-filed application [see page 9 of the as-filed application].

Figures 2 and 4 show color photographs of hippocampal neurons synaptolucin-1, imaged by wide field microscopy. The description of Figure 2 on page 10 and the description of Figure 4 on page 11 of the application as originally filed describe the images in the photographs by making reference to the colors in the photographs. Due to the visual nature of this invention, Applicants believe that the color photographs are the most effective illustrative method of conveying this aspect of the invention.

Figure 3 shows computer generated matched filtering of two synaptolucin images (Figs. 2B (control) and 2C (exocytosis triggered), with their common synaptic map, Fig. 2A, as shown schematically in Fig. 2F. Due to the three dimensional nature of this figure and the complexity of the contours and shading of this computer image, applicants believe that a color image is the best way to convey the data in this computer generated plot.

Figure 14 shows, *inter alia*, different views of the beta-barrel structure of the GFP. Figure 14A shows a side view and Figure 14B shows a top view. The description of this figure on page 13 of the specification as filed describes different sections of the GFP in these views by making reference to the color of these sections. Figures 14C-14E show several excitation spectra.

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Because some of the spectra are nearly overlaid on others, Applicants believe that a color representation would be the best way to present the data.

Figure 15 shows, *inter alia*, ratiometric pH measurements of extracellular space, endosomes, the trans-Golgi network, and synaptic vesicles, all of which are color-encoded according to the look-up table on the right-hand side of the figure. Due to the visual nature of this invention, Applicants believe that the color photographs are the most effective illustrative method of conveying this aspect of the invention.

Figure 16a shows a color map of all synapses in a field of hippocampal neurons, obtained by immunostaining with a monoclonal antibody against synaptotagmin-I. Figure 16b shows a color map of a synaptopHluorin-expressing synapses, formed by HSV-infected neurons whose somata lie outside the field of view. Figure 16C is a color photograph showing the dashed box in Figure 16B at higher magnification. Due to the visual nature of this invention, Applicants believe that the color photographs are the most effective and accurate method of illustrating this aspect of the invention.

Figure 17 shows, *inter alia*, photographs illustrating secretion visualized with ecliptic pHluorin. Due to the subtle changes in grayscale and color in these photographs, Applicants believe that the color photographs are the most effective and accurate method of illustrating this aspect of the invention.

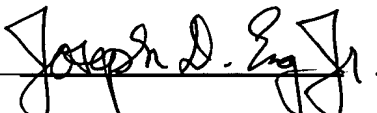
Applicants enclose a check for \$130.00 for the required fee according to 37 C.F.R. §1.84(a)(2)(i) and §1.17(h)

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account 13-4500, Order No. 2955-4004US3. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: March 11, 2004

By: 
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